**Daily Lesson Plan**

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| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Kingdoms and Taxonomy | |
| **Lesson No** 1 | **Lesson Title:** Kingdoms and Taxonomy | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 1, 2011 |

**Curriculum Expectations addressed:**

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| **A1.10** draw conclusions based on inquiry results and research findings, and justify their conclusions with reference to scientific knowledge  **A1.11** communicate ideas, plans, procedures, results, and conclusions orally, in writing, and/or in electronic presentations, using appropriate language and a variety of formats (e.g., data tables, laboratory reports, presentations, debates, simulations, models)  **B2.** investigate, through laboratory and/or field activities or through simulations, the principles of scientific classification, using appropriate sampling and classification techniques;  **B3.** demonstrate an understanding of the diversity of living organisms in terms of the principles of taxonomy and phylogeny.  **B2.1** use appropriate terminology related to biodiversity, including, but not limited to: *genetic* *diversity, species diversity, structural diversity,* *protists, bacteria, fungi, binomial nomenclature,* and *morphology*  **B3.1** explain the fundamental principles of taxonomy and phylogeny by defining concepts of taxonomic rank and relationship, such as genus, species, and taxon  **Big Idea:** All living things can be classified according to their anatomical and physiological  characteristics. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Create a phylogenetic tree | Teacher Observation | Assessment for Learning | Teacher Notes |

**Instructional Focus:**

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| **Teaching/Learning Strategies:**   * Exploring previous knowledge with a kinetic activity and gallery walk * Evaluating and Applying new ideas visually, and in written form * Compare and Contrast | **Student Groupings:**   * Elbow triads and quads |
| **Differentiation Strategies:**   * (Learning Style) This lesson includes visual, auditory, kinetic and reading components with students working groups to accomplish the main task. * Inquiry based activity allows the students to solve a larger problem for themselves which relates to a real word struggle in science. | |
| **Adaptations/Accommodations for Exceptional Students:**   * Written description (handout) of the task will be provided to students who need it, as well as a full class verbal outline, and an outline posted on the board. * Students working in random groups will be able to help each other and make use of all students’ strengths. * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms * Student handout can be provided filled in for students who need it do to difficulties writing. (Appendix C) | |

**Notes and Reminders**

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| * Have all materials ready. * **Students’ prior knowledge** from SNC1D includes biotic/abiotic factors and limiting factors |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to use the vocabulary (below) in an appropriate manner. * By the end of class students will be able to draw a phylogenetic tree and correctly distinguish one feature that separates each branch. | | | |
|  | **Minds On** | **Student Teacher Introduction**  **Sampling Activity**   * Teacher will set the scene of biologists visiting a new planet. 3 areas are to be explored and ‘species’ collected. * Students will spend 1 minute collecting ‘species’ (paper cut outs) then return to their seats. * In seat groups of 3-4, students will observe all the species and categorize them into 4 or 5 categories * Teacher will circulate and then ask groups what were some of the features that they used in their categorization. | **Materials and Resources Required**   * Student handouts * Markers * Paper cut outs * Chart paper * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation * Tape |
| 15 |
|  | **Action** | **Real World Succession**   * Teacher will introduce the idea of a phylogenetic tree using examples from the real world that students know. * They will learn to determine what characteristic distinguishes one species from another. * In their groups students will order their groupings of ‘species’ from least complex to most complex and then create their own phylogenetic tree on chart paper. * They will write a paragraph or point-form notes explaining their decisions. * Post chart paper on the walls |
| 20 |
|  | **Consolidation and Debrief** | **Summarize:**   * Gallery walk; students will be instructed to notice differences in their work and the work of others. * Discuss the similarities/differences in the work. * Teacher scaffolds links to the real world in classifying species. * Teacher introduces the current classification system and the 6 kingdoms (back of the book). | **Key Vocabulary**   * Phylogeny (404-406) * Phylogenetic tree * Cladistics * Taxonomy * Taxonomic Rank * Domains (3) (382) * Kingdoms (6) * Bacteria, Archaea, protista, Fungi, Plantae, Animalia |
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|  | **Next Steps** | * Teacher introduces the taxonomy of classification with one example. * Students are asked to find the taxonomy for 2 related species and determine the key difference between them. * Tomorrow we will be introducing their large projects for the month |
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**Daily Lesson Plan**

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| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Long Projects | |
| **Lesson No** 2 | **Lesson Title:** Research and Plant Labs | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 2, 2011 |

**Curriculum Expectations addressed:**

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| **Note:** The expectations addressed in this lesson will be ongoing for the whole month during independent work the students will be completing  **Research:** A1; A2; A1.3; A1.7; A1.9; A1.11; A2.1; A2.2; B1; B1.1; B1.2 F1; F1.1; F1.2  **Big ideas**: (Diversity) Human activities affect the diversity of living things in ecosystems.  (Plants) Plant variety is critical to the survival and sustainability of ecosystems.  **Plant Lab**: A1; A1.1; A1.2; A1.5; A1.6; A1.8; A1.10; A1.11; A1.12; F2; F2.1; F2.2;  **Big Idea:** Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| * Research a scientist and their work. * Conduct a plant growth lab | * Research work present for teacher and for classmates * Lab report | Assessment of Learning | Rubrics for marking |

**Instructional Focus:**

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| **Teaching/Learning Strategies:**   * Pair research * Group inquiry | **Student Groupings:**   * Pairs * Groups of 4 |
| **Differentiation Strategies:**  Research   * (Learning Style) This project includes a variety of ways in which it can be presented to allow for all types of learners to play to their strengths in displaying their understanding of the material. * (Interest) There will be choice involved in topics to research.   Plant growth lab   * (interest) Student will have some choice into what they study. * (readiness) Students will be working in groups that and can help one another to understand the key concepts. | |
| **Adaptations/Accommodations for Exceptional Students:**   * Written description (handout) of the task will be provided to students, as well as a full class verbal outline, and an outline posted on the board. * Students working in random groups will be able to help each other and make use of all students’ strengths. * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms * Multiple due dates will allow the teacher to monitor student progress to ensure all students are able to complete the work. | |

**Notes and Reminders**

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| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to proceed in the planning and implementing of their research project. * By the end of class groups will be able to proceed with implementing of their plant growth inquiry. * By the end of class students will be able to use the vocabulary appropriately in a sentence. | | | |
|  | **Research Outline** | **Introduce the Research**   * Teacher will show a TED talk from a modern researcher into diversity or plants. * Whole class discussion on the topic raised in the talk. * Teacher will explain the importance of looking at modern researchers in the field and hand out the research expectations. * Research expectations will be reviewed and students will be asked to choose who they will work with and research. * 5 minutes to discuss and decide. | **Materials and Resources Required**   * Student handouts (2) * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation |
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|  | **Plant Growth Lab** | **Plant Growth Lab**   * Elbow partner brainstorm of the factors affecting plant growth. * Whole group brainstorming (ensure all vocab is introduced). * Discussion of how to design a lab to determine the affects of the individual factors. * Distribute plant growth lab handouts and review expectations |
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|  | **Consolidation and Debrief** | **Group work:**   * Students in groups discuss their designs for their labs. * The lab work will take place at home, but the design needs to be decided on together. * Teacher circulates to scaffold where needed in the production of quality inquiry plans. | **Key Vocabulary**   * Nutrients * Quality/quantity (light) * Water retention * Water percolation * Acidity * tropism |
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|  | **Next Steps** | * Teacher points out various due dates for both projects and ensures students are ready to complete this work in their pairs and groups. * Teacher reminds the students that these 2 projects will be their homework in addition to reviewing notes most days. |
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**Daily Lesson Plan**

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| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Cell Types | |
| **Lesson No** 3 | **Lesson Title:** 2nd Plant growth lab; Prokaryotes and Eukaryotes | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 3, 2011 |

**Curriculum Expectations addressed:**

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| **Plant Lab:** A1; A1.1; A1.6; A1.8; A1.10; A1.11; A1.12; F2; F2.1; F2.4  **Lesson:**  **A1.11** communicate ideas, plans, procedures, results, and conclusions orally, in writing, and/or in electronic presentations, using appropriate  language and a variety of formats (e.g., data tables, laboratory reports, presentations, debates, simulations, models)  **B2.1** use appropriate terminology related to biodiversity, including, but not limited to: *genetic* *diversity, species diversity, structural diversity,* *protists, bacteria, fungi, binomial nomenclature,* and *morphology*  **B3.2** compare and contrast the structure and function of different types of prokaryotes, eukaryotes, and viruses (e.g., compare and contrast genetic material, metabolism, organelles, and other cell parts)  **Big Idea:** All living things can be classified according to their anatomical and physiological  characteristics. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Venn Diagram | Student Reflection | Assessment as Learning | none |

**Instructional Focus:**

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| **Teaching/Learning Strategies:**   * Evaluating and Applying new ideas using a visual organizer * Compare and Contrast | **Student Groupings:**   * Elbow partners |
| **Differentiation Strategies:**   * Use of visual organizer to evaluate thoughts. | |
| **Adaptations/Accommodations for Exceptional Students:**   * Written description (handout) of the task will be provided to students who need it, as well as a full class verbal outline, and an outline posted on the board. * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms | |

**Notes and Reminders**

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| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able follow a method to observe plant growth. * By the end of class students will be able to distinguish between prokaryotic and eukaryotic cells. | | | |
|  | **Lab** | **Plant Lab 2**   * Teacher will introduce three methods of plant propagation. * Students will work as a class to develop a method for studying plant growth comparing propagation methods. * Students will prepare the specimens for study and fill in the beginning of their notes. | **Materials and Resources Required**   * Student handouts * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation |
| 20 |
|  | **Lesson** | * Review kingdoms and homework from Tuesday, use examples to talk about taxonomic rank * Introduce prokaryotes and eukaryotes and the differences use: * Students take notes * In elbow partners students fill in a venn diagram of the similarities and differences between pro/eukaryotes |
| 25 |
|  | **Consolidation and Debrief** | **Summarize:**   * As a class, ensure that everyone got all the points in the chart * Add in sections comparing bacteria to archaea, protista, fungi, plantae and animalia & viruses * Begin a discussion of evolutionary differences | **Key Vocabulary**   * Taxonomy(404-406) * Taxonomic Rank * Prokaryote * Eukaryote * Virus * Domains (3) (382) * Kingdoms (6) * Bacteria, Archaea, protista, Fungi, Plantae, Animalia |
| 25 |
|  | **Next Steps** | * Quiz tomorrow! |
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**Daily Lesson Plan**

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| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Evolution and Biodiversity | |
| **Lesson No** 4 | **Lesson Title:** Evolution and Biodiversity | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 4, 2011 |

**Curriculum Expectations addressed:**

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| **B3.4** explain key structural and functional change in organisms as they have evolved over time (e.g., the evolution of eukaryotes from prokaryotes, of plants from unicellular organisms)  **B3.5** explain why biodiversity is important to maintaining viable ecosystems (e.g., biodiversity helps increase resilience to stress and resistance to diseases or invading species)  **Big Idea:** All living things can be classified according to their anatomical and physiological  characteristics. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Quiz | marked | Assessment of Learning |  |

**Instructional Focus:**

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| **Teaching/Learning Strategies:**   * Exploring previous knowledge with writing * Whole group problem solving | **Student Groupings:**   * Elbow partners and whole class |
| **Differentiation Strategies:**   * Exploring previous knowledge allows the teacher to address preconceived notions to ensure higher quality learning. | |
| **Adaptations/Accommodations for Exceptional Students:**   * Written description (handout) of the task will be provided to students who need it, as well as a full class verbal outline, and an outline posted on the board. * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms | |

**Notes and Reminders**

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| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to describe the process of evolution using an example of an evolutionary change between species. * By the end of class students will be able to explain the importance of biodiversity in an ecosystem. | | | |
|  | **Minds On** | **Quiz**   * Students will write a quiz based on what they have learned so far this week. | **Materials and Resources Required**   * Quizzes * Student handouts * Q is for Quark * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation |
| 15 |
|  | **Action** | **Evolution:**   * Writing task: for 5 minutes answer the question, How did planet Earth come to have so many different organisms * Share your answer with your partner * Share answers with the class * Teacher shares an answer from Q is for Quark * Class generates a definition for evolution and suggests ways in which natural selection can occur |
| 30 |
|  | **Consolidation and Debrief** | **Biodiversity:**   * Talk with an elbow partner: What is biodiversity? * Why is biodiversity important? * We are going to check out the biodiversity in the ravine on Monday | **Key Vocabulary**   * Domains (3) (382) * Kingdoms (6) * Bacteria, Archaea, protista, Fungi, Plantae, Animalia * Evolution * Biodiversity * Ecosystem * Natural Selection * Genetic variation * Charles Darwin * Keystone species |
| 10 |
|  | **Next Steps** | * Teacher will introduce the sampling lab and ensure that the students come prepared to class on Monday |
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**Daily Lesson Plan**

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| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Evolution | |
| **Lesson No** 5 | **Lesson Title:** Neo-Evolution | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 7, 2011 |

**Curriculum Expectations addressed:**

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| **B3.4** explain key structural and functional change in organisms as they have evolved over time (e.g., the evolution of eukaryotes from prokaryotes, of plants from unicellular organisms)  **B3.5** explain why biodiversity is important to maintaining viable ecosystems (e.g., biodiversity helps increase resilience to stress and resistance to diseases or invading species)  **Big Idea:** All living things can be classified according to their anatomical and physiological  characteristics. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| None |  |  |  |

**Instructional Focus:**

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| **Teaching/Learning Strategies:**   * Video * Class discussion | **Student Groupings:**   * Whole class; small groups |
| **Differentiation Strategies:** | |
| **Adaptations/Accommodations for Exceptional Students:**   * This class is an extension activity for the students who were able to attend during Eid. As many students were on holiday a full class could not be held. | |

**Notes and Reminders**

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| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will have expressed their opinion regarding the ethics of neo-evolution. | | | |
|  | **Minds On** | * Check on progress * Discuss due dates. | **Materials and Resources Required**   * Videos * Working projector |
| 20 |
|  | **Action** | **Videos**   * Watch 3 videos: * 1 reviewing ecology * 1 on Darwin * 1 TED talk on Neo-Evolution |
| 35 |
|  | **Return** | * Discuss the TED talk | **Key Vocabulary** |
| 20 |
|  | **Next Steps** | * None |
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**Daily Lesson Plan**

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| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Research | |
| **Lesson No** 6 | **Lesson Title:** Computer Day | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 8, 2011 |

**Curriculum Expectations addressed:**

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| **Research:** A1; A2; A1.3; A1.7; A1.9; A1.11; A2.1; A2.2; B1; B1.1; B1.2 F1; F1.1; F1.2  **Big ideas**: (Diversity) Human activities affect the diversity of living things in ecosystems.  (Plants) Plant variety is critical to the survival and sustainability of ecosystems. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Research report and presentation | Teacher observation | Assessment for learning | Teacher provides feedback to students before they write final report |

**Instructional Focus:**

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| --- | --- |
| **Teaching/Learning Strategies:**   * Partner research | **Student Groupings:**   * Groups of 4 |
| **Differentiation Strategies:**   * (interest) Choice was given in the topic selection * Students are given access to resources to do their research. | |
| **Adaptations/Accommodations for Exceptional Students:**   * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms * Students are given 1 week to complete the work * Many presentation methods are possible to appeal to all student strengths. | |

**Notes and Reminders**

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| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be have collected some research on their topics. | | | |
| 55 | **Action** | * Students conduct research in pairs. * Teacher circulates to provide guidance. | **Materials and Resources Required**   * Computer Lab * Chalk |
| **Key Vocabulary** |
| 5 | **Next Steps** | * Ensure all students know where they are going next with their own projects. |

**Daily Lesson Plan**

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| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Biodiversity | |
| **Lesson No** 7 | **Lesson Title:** Sampling Lab | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 9, 2011 |

**Curriculum Expectations addressed:**

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| **Lab concepts:** A1.4, A1.5, A1.6, A1.8, A1.10, A1.11, A1.12  **B2.3** use proper sampling techniques to collect various organisms from a marsh, pond, field, or other ecosystem, and classify the organisms according to the principles of taxonomy  **B3.3** describe unifying and distinguishing anatomical and physiological characteristics (e.g., types of reproduction, habitat, general physical structure) of representative organisms from each of the kingdoms  **B3.5** explain why biodiversity is important to maintaining viable ecosystems (e.g., biodiversity helps increase resilience to stress and resistance to diseases or invading species)  **Big Idea:** All living things can be classified according to their anatomical and physiological characteristics.  Human activities affect the diversity of living things in ecosystems. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Lab report | Teacher observation  marked | Assessment for learning  Assessment of Learning | Teacher notes, provide feedback to students before they write final report |

**Instructional Focus:**

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| **Teaching/Learning Strategies:**   * Sampling lab | **Student Groupings:**   * Groups of 4 |
| **Differentiation Strategies:**   * This lab activity gets the students out into real environments to look at how scientific data is actually collected | |
| **Adaptations/Accommodations for Exceptional Students:**   * Students working in random groups will be able to help each other and make use of all students’ strengths. * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms * Students are given 1 week to complete the work | |

**Notes and Reminders**

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| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to scientifically sample biodiversity using appropriate controls. * By the completion of their lab report students will be able to explain the importance of biodiversity in an ecosystem. | | | |
|  | **Minds On** | * Ensure preparedness * Travel to site | **Materials and Resources Required**   * Student handouts * Meter sticks * Students have cameras, pencils, clipboards etc.   \*No need for permission forms with 2km |
| 20 |
|  | **Action** | **Sampling lab:**   * In groups of 4 students will record all visible species within a 1m2 quadrant * They should take photos of each of the different species in order to verify what species they are. |
| 35 |
|  | **Return** | * Travel back from the site | **Key Vocabulary**   * Biodiversity * Ecosystem * Sampling * Quadrant |
| 15 |
|  | **Next Steps** | * Online collection of data, every group must record their data on the table on the wiki so that all students have access to write their reports. |
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**Daily Lesson Plan**

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| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity | | **Topic:** Anatomy and Physiology | |
| **Lesson No** 8 | **Lesson Title:** Anatomy and Physiology Jigsaw | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 10, 2011 |

**Curriculum Expectations addressed:**

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| **B2.4** create and apply a dichotomous key to identify and classify organisms from each of the kingdoms  **B3.1** explain the fundamental principles of taxonomy and phylogeny by defining concepts of taxonomic rank and relationship, such as genus, species, and taxon  **B3.2** compare and contrast the structure and function of different types of prokaryotes, eukaryotes, and viruses (e.g., compare and contrast genetic material, metabolism, organelles, and other cell parts)  **B3.3** describe unifying and distinguishing anatomical and physiological characteristics (e.g., types of reproduction, habitat, general physical structure) of representative organisms from each of the kingdoms  **Big Idea:** All living things can be classified according to their anatomical and physiological  characteristics. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

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| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Jigsaw | Teacher observation | Assessment for Learning | Teacher notes |

**Instructional Focus:**

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| **Teaching/Learning Strategies:**   * Group summarizing * Explaining learned information to classmates * Using a table to organize thoughts | **Student Groupings:**   * Groups of 6 |
| **Differentiation Strategies:**   * Learning from independent reading and group discussion * Working in groups to summarize so everyone gets the key points | |
| **Adaptations/Accommodations for Exceptional Students:**   * Key points will be posted on the internet to ensure that all students have access to the same information * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms | |

**Notes and Reminders**

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| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to compare and contrast the six kingdoms of living things. * By the end of class students will be able to create and use a dichotomous key to distinguish between biological kingdoms | | | |
|  | **Minds On** | **Home Groups**   * All students introduce yourselves and ensure that you know where to return to. * Teacher introduces the concept of the jigsaw and ensures all students are ready. | **Materials and Resources Required**   * Student handouts * Q is for Quark * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation |
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|  | **Action** | **Research:**   * Students move to their research groups. * Each group does research from one kingdom * The group chooses key points to record in the table   Home Groups   * Students return to home groups * Each returning member explains what they learned and the information is recorded |
| 45 |
|  | **Consolidation and Debrief** | **Dichotomous Key:**   * As a class students decide on the most consistent differences between different groups in order to create a dichotomous key * Key is recorded and tested with example species. | **Key Vocabulary**   * Domains (3) (382) * Kingdoms (6) * Bacteria, Archaea, protista, Fungi, Plantae, Animalia * Evolution * Physiology * Anatomy * Dichotomous Key |
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|  | **Next Steps** | * Reminders to review for open book group review quiz |
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**Daily Lesson Plan**

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| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Review and Introduction | |
| **Lesson No** 9 | **Lesson Title:** Review and Introduction | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 11, 2011 |

**Curriculum Expectations addressed:**

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| **F1.** evaluate the importance of sustainable use of plants to Canadian society and other cultures;  **F2.** investigate the structures and functions of plant tissues, and factors affecting plant growth;  **F2.1** use appropriate terminology related to plants, including, but not limited to: *mesophyll, palisade,* *aerenchyma, epidermal tissue, stomata, root hair,* *pistil, stamen, venation, auxin,* and *gibberellin*  **Big Idea:** Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment.  Plant variety is critical to the survival and sustainability of ecosystems. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Open book quiz | marked | Assessment as Learning  Assessment of learning | With open book, working in groups and enough time, students should be able to find their own knowledge gaps |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Group review * Mind mapping | **Student Groupings:**   * Groups of 4; whole class |
| **Differentiation Strategies:**   * Learning from independent reading and group discussion * Working in groups to summarize so everyone gets the key points | |
| **Adaptations/Accommodations for Exceptional Students:**   * Key points will be posted on the internet to ensure that all students have access to the same information * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will have determined what areas of the diversity unit they need to review. * By the end of class students will be able to use some of the vocabulary appropriately in a sentence. | | | |
|  | **Minds On** | **Group, Open Book, Quiz**   * Group Plant Check * Teacher will explain that the quiz is more like a collaborative assignment, except that in copying you are only hurting yourself. * Students will work on quizzes to be handed in after 40 minutes while teacher speaks to students about their research and plant projects | **Materials and Resources Required**   * Student handouts * Quizzes * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation |
| 40 |
|  | **Action** | **Plants Introduction:**   * Students will work in groups of 3 or 4 on a placemat activity getting out all of their ideas on paper. * They will look at each other’s sections and ask questions about things they do not know. * They will circle or otherwise mark ideas that go together |
| 15 |
|  | **Consolidation and Debrief** | * As a class, students we will create a mind map linking ideas together to see where we will be going in the next few months. * Students will copy the mind map into their books. | **Key Vocabulary**   * Stomata * Pistil * Stamen * Epidermal tissue * Palisade * Mesophyll * Aerenchyma * Root hair |
| 15 |
|  | **Next Steps** | * Reminder to finish sampling lab. |
| 5 |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Plants | | **Topic:** Succession | |
| **Lesson No** 10 | **Lesson Title:** Succession | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 14, 2011 |

**Curriculum Expectations addressed:**

|  |
| --- |
| **A1.1** formulate relevant scientific questions about observed relationships, ideas, problems, or issues, **make informed predictions**, and/or formulate educated hypotheses to focus inquiries or research.  **A1.11** **communicate ideas**, plans, procedures, results, and conclusions **orally**, in **writing**, and/or in electronic presentations, using appropriate language and a variety of formats (e.g., data tables, laboratory reports, presentations, debates, simulations, models)  **F3.4** describe the various **factors that affect plant growth** (e.g., growth regulators, sunlight, water, nutrients, acidity, tropism)  **F3.5** **explain the process of ecological succession**, including the role of plants in maintaining biodiversity and the survival of organisms after a disturbance to an ecosystem  **Big Idea:** Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Drawing Succession | Teacher Observation | Assessment for Learning | Teacher Notes |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Exploring previous knowledge with a kinetic activity and gallery walk * Evaluating and Applying new ideas visually, orally and in written form * Summarizing * Compare and Contrast | **Student Groupings:**   * Elbow partners * Mixed ability |
| **Differentiation Strategies:**   * (Learning Style) This lesson includes visual, auditory, kinetic and reading components with students working in mixed ability groups to accomplish the main task. * (Ability) By working in mixed ability groups on a task designed for full group participation all members will be able to contribute at their own level. | |
| **Adaptations/Accommodations for Exceptional Students:**   * Written description (handout) of the task will be provided to students who need it, as well as a full class verbal outline, and an outline posted on the board. * Students working in mixed-ability groups will be able to help each other and make use of all students’ strengths. Gifted students can be encouraged to take the ideas further and connect to other units. * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms * Student handout can be provided filled in for students who need it do to difficulties writing. (Appendix C) | |

**Notes and Reminders**

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| * Have all materials ready. * **Students’ prior knowledge** from SNC1D includes biotic/abiotic factors and limiting factors * **Students’ prior knowledge** from earlier in this class includes and understanding of biodiversity in general from the diversity unit. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to clearly explain the process of succession in relation to time and environmental factors. * By the end of class students will be able to state the similarities and differences between primary and secondary succession. | | | |
|  | **Minds On**  **(Introductory Activity)** | **Tangram Activity**   * Provide elbow partners with 1 kind of tangram, have the students create a design; add a second kind of tangram; add a third * Explain the desk is barren rock and the tangrams are different plants. Pairs discuss how this happened? What plants are they? * Write their answers in a short paragraph * Gallery walk and look at other designs/answers * Whole class discussion of similarities and differences | **Materials and Resources Required**   * Student handouts * Markers * Tangrams * Scrap paper * Chart paper * Pictures * (Chalk) * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation * Library books with descriptions of succession |
| 15 |
|  | **Action**  **(Main Activity)** | **Real World Succession**   * Watch this simulation: <http://www.mrphome.net/mrp/succession.swf> * Take time to address any gaps in knowledge noticed in the Minds On activity. * In groups of 4 (made by the teacher; mixed ability) students will be working with pictures of real world succession. * Each group will be given 3 copies of one of the attached pictures. * The task (Appendix A) will be posted on the screen * Students will complete the task. They may use their texts, and the internet on their phones, any other books in the class for ideas should they wish. * Present the task to the class (informal, standing at their seats; 2 minutes per group) (teacher puts work on the wall after each presentation) |
| 35 |
|  | **Consolidation and Debrief**  **(make connections)** | **Summarize:**   * Teacher displays the summary chart with the projector; students receive a handout (Appendix B) * Whole class, teacher led, discussion to fill in the chart * Special attention paid to: * Reasons for plant order in succession (specialized structures to respond to the environment) * natural causes vs. human causes * Identify new vocabulary for the word wall; one student will write the new vocabulary on the word wall. | Key Vocabulary   * primary succession * secondary succession * climax community * environmental stimuli * lichens |
| 20 |
|  | **Next Steps** | * Discuss what was missed (aquatic environments) * Homework: Fill in the bottom of the handout |
| 5 |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Plant Types | |
| **Lesson No** 11 | **Lesson Title:** Plant Types | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 15, 2011 |

**Curriculum Expectations addressed:**

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| --- |
| **F2.** investigate the structures and functions of plant tissues, and factors affecting plant growth;  **F2.1** use appropriate terminology related to plants, including, but not limited to: *mesophyll, palisade,* *aerenchyma, epidermal tissue, stomata, root hair,* *pistil, stamen, venation, auxin,* and *gibberellins*  **F3.2** compare and contrast monocot and dicot plants in terms of their structures (e.g., seeds, stem, flower, root) and their evolutionary processes (i.e., how one type evolved from the other)  **F3.3** explain the reproductive mechanisms of plants in natural reproduction and artificial propagation (e.g., germination of seeds, leaf cuttings, grafting of branches onto a host tree)  **Big Idea:** Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Note taking |  |  |  |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Lecture Style | **Student Groupings:**   * Whole class |
| **Differentiation Strategies:**   * None (this is different from most of my lessons, and requested) | |
| **Adaptations/Accommodations for Exceptional Students:**   * Prezi will be available on the wiki | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to distinguish between different groups of plants. | | | |
|  | **Minds On** | * Review succession with handout * Students help to fill it out * Talk about the different kind of plants involved in succession | **Materials and Resources Required**   * Student handouts * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation |
| 15 |
|  | **Action**  **Consolidation and Debrief** | **Lecture Style**   * Vascular vs non vascular * Angiosperm vs Gymnosperm * Monocots vs Dicots * Check for understanding |
| 40 |
| **Key Vocabulary**   * Vascular * Non-vascular * Angiosperm * Gymnosperm * Monocot * Dicot * Veins * Xylem * Phloem * Vascular bundles * Cotyledon |
|  | **Next Steps** | * Reminders |
| 5 |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Plant Types | |
| **Lesson No** 12 | **Lesson Title:** Plant Structures | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 16, 2011 |

**Curriculum Expectations addressed:**

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| --- |
| **F2.** investigate the structures and functions of plant tissues, and factors affecting plant growth;  **F2.1** use appropriate terminology related to plants, including, but not limited to: *mesophyll, palisade,* *aerenchyma, epidermal tissue, stomata, root hair,* *pistil, stamen, venation, auxin,* and *gibberellins*  **F3.2** compare and contrast monocot and dicot plants in terms of their structures (e.g., seeds, stem, flower, root) and their evolutionary processes (i.e., how one type evolved from the other)  **F3.3** explain the reproductive mechanisms of plants in natural reproduction and artificial propagation (e.g., germination of seeds, leaf cuttings, grafting of branches onto a host tree)  **Big Idea:** Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Note taking |  |  |  |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Lecture Style | **Student Groupings:**   * Whole class |
| **Differentiation Strategies:**   * None (this is different from most of my lessons, and requested) | |
| **Adaptations/Accommodations for Exceptional Students:**   * Prezi will be available on the wiki | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to identify, using the correct terminology, most parts of a plant. | | | |
|  | **Minds On** | * Review Homework from Monday * Review yesterdays material | **Materials and Resources Required**   * Chalk * Computer file for projected task/culmination work * Ensure projector is ready and internet is working for simulation |
| 15 |
|  | **Action**  **Consolidation and Debrief** | **Lecture style**   * The Vascular System * The leaf(epidermis, stomata, palisades) * Stem (cortex, pith) * Root (root cap, meristem, elongation, root hairs) * Flower?? |
| 55 |
| **Key Vocabulary**   * Epidermis * Stomata * Palisades * Cortex * Pith * Stolons * Runners * Tubers * Corms * Rhizome * Turgor * Meristematic |
|  | **Next Steps** | * Reminders |
| 5 |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Plant Structures | |
| **Lesson No** 13 | **Lesson Title:** Plant Structure Stations Lab | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 17, 2011 |

**Curriculum Expectations addressed:**

|  |
| --- |
| **F2.3** identify, and draw biological diagrams of, the specialized plant tissues in roots, stems, and leaves (e.g., xylem, phloem), using a microscope and models  **F3.1** describe the structures of the various types of tissues in vascular plants, and explain the mechanisms of transport involved in the processes by which materials are distributed throughout a plant (e.g., transpiration, translocation, osmosis)  **Big Idea:** Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Stations | Taken up | Assessment for Learning |  |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Individual learning by investigation | **Student Groupings:**   * Individual; whole class |
| **Differentiation Strategies:**   * Each station involves different types of activities * Students can choose where to start and how to move through the work | |
| **Adaptations/Accommodations for Exceptional Students:**   * All instructions clearly written out * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms * Students can work at their own pace | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

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| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to label a scientific drawing of a plant and to describe the functions of each part. * By the end of class students will be able to describe how the parts of a plant function together to allow for the internal transportation of water and nutrients. | | | |
|  | **Action** | **Stations**   * Individuals will make their way through 5 stations * Each station will have a specific set of tasks: * 1. Flower drawing and labelling * 2. Vascular systems * 3. Microscope plant structures * 4 Monocots vs Dicots * 5. Root systems | **Materials and Resources Required**   * Student handouts * Stations set up * Microscopes * Plants * Slides * Chalk |
| 50 |
|  | **Consolidation and Debrief** | * Students will get time back at their desks to consider their work and to ensure they understand the lab. | **Key Vocabulary**   * Review |
| 15 |
|  | **Next Steps** | * Reminders |
| 5 |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Diversity Presentations | |
| **Lesson No** 14 | **Lesson Title:** Diversity Presentations | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 21, 2011 |

**Curriculum Expectations addressed:**

|  |
| --- |
| **Research:** A1; A2; A1.3; A1.7; A1.9; A1.11; A2.1; A2.2;  **B1**. analyse the effects of various human activities on the diversity of living things;  **B1.1** analyse some of the risks and benefits of human intervention (e.g., tree plantations; monoculture of livestock or agricultural crops; overharvesting of wild plants for medicinal purposes; using pesticides to control pests; suppression of wild fires) to the biodiversity of aquatic or terrestrial ecosystems  **B1.2** analyse the impact that climate change might have on the diversity of living things (e.g., rising temperatures can result in habitat loss or expansion; changing rainfall levels can cause drought or flooding of habitats)  **Big Idea:** Human activities affect the diversity of living things in ecosystems. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| presentations | marked | Assessment of learning | various |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Research presentations | **Student Groupings:**   * pairs |
| **Differentiation Strategies:**   * These strategies were worked into the design of the activity. | |
| **Adaptations/Accommodations for Exceptional Students:**   * These strategies were worked into the design of the research project. | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

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| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to describe the work of 6-8 modern scientists in the field of biological diversity | | | |
| 75 | **Student Presentations** | * Research Presentations * 6-8 pairs will present the findings of their research. They have a few options for how they present this work. * The class will take notes as this information can appear on the test. | **Materials and Resources Required**   * Chalk * Ensure projector is ready and internet is working for simulation * Other to be provided by students |
| **Key Vocabulary**   * Provided by Students |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Plants | | **Topic:** Plant Growth | |
| **Lesson No** 15 | **Lesson Title:** Work Day | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 22, 2011 |

**Curriculum Expectations addressed:**

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| --- |
| **Plant Lab**: A1; A1.1; A1.2; A1.5; A1.6; A1.8; A1.10; A1.11; A1.12; F2; F2.1; F2.2;  **Big Idea:** Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Lab reports | Teacher marks | Assessment of learning | Teacher can answer questions prior to handing in the final report. |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Group Work * Lab Report writing | **Student Groupings:**   * Groups of 4 |
| **Differentiation Strategies:**   * This has been a very kinetic activity. The students can work in groups to compare results and then must produce their own reports. | |
| **Adaptations/Accommodations for Exceptional Students:**   * Time is given in class to provide needed feedback before being finished at home. | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be mostly finished the observations and analysis sections of their lab reports. | | | |
| 55 | **Action** | * Compare Data from their growth experiments * Teacher circulates to provide guidance. | **Materials and Resources Required**   * Chalk |
| **Key Vocabulary** |
| 5 | **Next Steps** | * Ensure all students know what they need to do to complete their reports on time. |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Plants Presentations | |
| **Lesson No** 16 | **Lesson Title:** Plants Presentations | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 23, 2011 |

**Curriculum Expectations addressed:**

|  |
| --- |
| **Research:** A1; A2; A1.3; A1.7; A1.9; A1.11; A2.1; A2.2;  **F1**. evaluate the importance of sustainable use of plants to Canadian society and other cultures;  **F1.1** evaluate, on the basis of research, the importance of plants to the growth and development of Canadian society (e.g., as a source of food, pharmaceuticals, Aboriginal medicines, building materials, flood and erosion control; as a resource for recreation and ecotourism)  **F1.2** evaluate, on the basis of research, ways in which different societies or cultures have used plants to sustain human populations while supporting environmental sustainability (e.g., sustainable agricultural practices in developing countries such as crop rotation and seed saving; traditional Aboriginal corn production practices)  **Big Idea:** Plant variety is critical to the survival and sustainability of ecosystems. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| presentations | marked | Assessment of learning | various |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Research presentations | **Student Groupings:**   * pairs |
| **Differentiation Strategies:**   * These strategies were worked into the design of the activity. | |
| **Adaptations/Accommodations for Exceptional Students:**   * These strategies were worked into the design of the research project. | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

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| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will be able to describe the work of 6-8 modern scientists in the field of plant biology. | | | |
| 75 | **Student Presentations** | * Research Presentations * 6-8 pairs will present the findings of their research. They have a few options for how they present this work. * The class will take notes as this information can appear on the test. | **Materials and Resources Required**   * Chalk * Ensure projector is ready and internet is working for simulation * Other to be provided by students |
| **Key Vocabulary**   * Provided by Students |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Review | |
| **Lesson No** 17 | **Lesson Title:** Review | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 24, 2011 |

**Curriculum Expectations addressed:**

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| --- |
| **Big Ideas:**  All living things can be classified according to their anatomical and physiological characteristics.  Human activities affect the diversity of living things in ecosystems.  Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment.  Plant variety is critical to the survival and sustainability of ecosystems. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Questions | Taken Up | Assessment as Learning | Teacher can provide help and feedback |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Individual or small group work time * Time to ask questions of the teacher | **Student Groupings:**   * Varied according to student preference |
| **Differentiation Strategies:**   * Time for one-on-one work with the teacher and fellow student help | |
| **Adaptations/Accommodations for Exceptional Students:**   * Extra time as needed | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

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| **Lesson Outline** | | | |
| **Objectives (learning goals):**   * By the end of class students will express a preparedness for the test | | | |
|  | **Action** | **Stations**   * Teacher explains test structure and what to expect. * Individuals/small groups work on assigned review questions * Teacher circulates to ensure all students understand. | **Materials and Resources Required**   * Question list * Chalk |
| 65 |
|  | **Consolidation and Debrief** | * As a class students will discuss the upcoming test to determine priorities for the night’s studying | **Key Vocabulary** |
| 10 |
|  | **Next Steps** |  |
|  |

**Daily Lesson Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course:** Grade 11 Academic Biology | | **Course Code:** SBI3U | |
| **Unit Title:** Diversity & Plants | | **Topic:** Unit Test | |
| **Lesson No** 18 | **Lesson Title:** Unit Test | | |
| **Teacher:** Saralyn Covent | | | **Date:** November 25, 2011 |

**Curriculum Expectations addressed:**

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| --- |
| **Big Ideas:**  All living things can be classified according to their anatomical and physiological characteristics.  Human activities affect the diversity of living things in ecosystems.  Plants have specialized structures with distinct functions that enable them to respond and adapt to their environment.  Plant variety is critical to the survival and sustainability of ecosystems. |

**Assessment Tasks/Activities, Strategies and Recording Devices:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks/Activities** | **Assessment Strategies** | **Assessment Types** | **Recording Devices** |
| Written Test | marked | Assessment of Learning |  |

**Instructional Focus:**

|  |  |
| --- | --- |
| **Teaching/Learning Strategies:**   * Individual test writing | **Student Groupings:**   * Individual |
| **Differentiation Strategies:**   * Different question styles * Some question choice | |
| **Adaptations/Accommodations for Exceptional Students:**   * Font choice for all work uses the most easily recognizable ‘a’ and ‘g’ forms * Students can work at their own pace (extra time provided to those who need it) | |

**Notes and Reminders**

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| --- |
| * Have all materials ready. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lesson Outline** | | | |
| **Test** | | | |
|  | **Action** | **Test** | **Materials and Resources Required**   * Chalk |
| 75 |